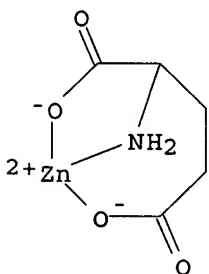


d .

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 15322-33-5 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Zinc, [L-glutamato(2-)-κN,κO1,κO5]- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Glutamic acid, zinc deriv. (6CI)
 CN L-Glutamic acid, zinc complex
 CN Zinc, (L-glutamato)- (7CI, 8CI)
 CN Zinc, [L-glutamato(2-)-N,O1,O5]-
 OTHER NAMES:
 CN Zinc glutamate (1:1)
 DR 93460-04-9
 MF C5 H7 N O4 Zn
 CI CCS, COM
 LC STN Files: CA, CAOLD, CAPLUS, TOXCENTER, USPAT2, USPATFULL



14 REFERENCES IN FILE CA (1907 TO DATE)
 14 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=>

http://www.cas.org/infopolicy.html

=> s 15322-33-5

REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...

Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L5 14 L4

=> s 15 and py<2002

21804355 PY<2002

L6 10 L5 AND PY<2002

=> d 1-10 ibib abs hitstr

L6 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:308987 CAPLUS

DOCUMENT NUMBER: 138:142307

TITLE: Study on the best conditions for preparation of zinc glutamate

AUTHOR(S): Li, Shangde; Li, Yi; Mo, Lier; Cheng, Hefeng; Guan, Xiongtai; Dongye, Guangzhi

CORPORATE SOURCE: Guangdong Medical College, Zhanjiang, 524023, Peop. Rep. China

SOURCE: Guangdong Weiliang Yuansu Kexue (2001), 8(12), 54-57

CODEN: GWYKF3; ISSN: 1006-446X

PUBLISHER: Guangdong Weiliang Yuansu Kexue Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

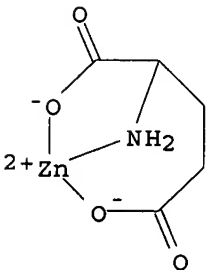
AB Zinc glutamate was synthesized from Na glutamate and ZnO, and characterized by elemental anal., molar conductivity and IR. The yield was 86% under the optimum synthetic conditions: molar ratio of Na glutamate to ZnO 1.2:1, reaction time 5 h, reaction temperature 90°C and crystallization time 7 h.

IT 15322-33-5P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(best conditions for preparation of zinc glutamate)

RN 15322-33-5 CAPLUS

CN Zinc, [L-glutamato(2-)-κN,κO1,κO5]- (9CI) (CA INDEX NAME)



L6 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

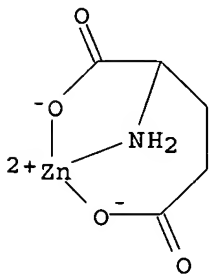
ACCESSION NUMBER: 1997:581169 CAPLUS

DOCUMENT NUMBER: 127:242377

TITLE: Synthesis and properties of amino acid zinc salt

AUTHOR(S): Zhang, Youming; Bai, Junfeng; Lu, Manqing; Lu, Airu

CORPORATE SOURCE: Institute of Chemistry, Northwest Teacher's University, Lanzhou, 730070, Peop. Rep. China
 SOURCE: Huaxue Shijie (1997), 38(2), 82-84
 CODEN: HUAKAB; ISSN: 0367-6358
 PUBLISHER: Shanghaishi Huaxue Huagong Xuehui
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 AB Zinc aspartate and zinc glutamate were prepared by refluxing L-aspartic acid and L-glutamic acid with zinc oxide (ZnO) (mol ratio of amino acid/zinc oxide = 1.25/1) in H2O at pH 7 for 5-6 h, resp. Their structure were determined by IR spectra and element anal. The title compds are good zinc-supplying drugs.
 IT 15322-33-5P, Zinc glutamate (1:1)
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (synthesis and properties of amino acid zinc salt)
 RN 15322-33-5 CAPLUS
 CN Zinc, [L-glutamato(2-)-κN,κO1,κO5]- (9CI) (CA INDEX NAME)



L6 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1995:994221 CAPLUS
 DOCUMENT NUMBER: 124:56710
 TITLE: Zinc-free extraction of glutamic acid
 INVENTOR(S): Sun, Yunju
 PATENT ASSIGNEE(S): Peop. Rep. China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp.
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

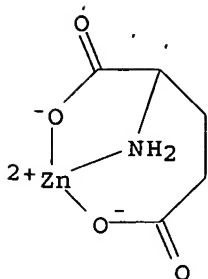
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1098088	A	19950201	CN 1993-111392	19930727 <--

PRIORITY APPLN. INFO.: CN 1993-111392 19930727

AB Glutamic acid (I) is extracted from a supernatant solution or mother liquor by precipitation of I as I.Zn salt, separation of the upper phase and subject it to cation exchange, and recovery of the Zn ion from the cation-exchange resins. ZnSO4 was added to I mother liquor, NH3 was introduced to pH 6.3-6.5, the precipitated I.Zn was separated from the upper phase, which was passed through a cation-exchange resin and the liquid was discharged Zn-free and harmless to the environment. The precipitated I.Zn was dissolved in H2O and acidified to pH 2.4 to recover crystalline I. The Zn-adsorbed resins were eluted with 8-12% H2SO4 to recover Zn2+ for recycle.

IT 15322-33-5
 RL: RCT (Reactant); RACT (Reactant or reagent) (Zinc-free extraction of glutamic acid)

RN 15322-33-5 CAPLUS
 CN Zinc, [L-glutamato(2-)-κN,κO1,κO5]- (9CI) (CA INDEX NAME)



L6 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:522751 CAPLUS
 DOCUMENT NUMBER: 111:122751
 TITLE: Bath for electrodeposition of a gold-copper-zinc alloy
 INVENTOR(S): Emmenegger, Heinz
 PATENT ASSIGNEE(S): Engelhard Industries Ltd., UK
 SOURCE: Eur. Pat. Appl., 9 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 304315	A1	19890222	EP 1988-307696	19880819 <--
EP 304315	B1	19930303		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 86313	E	19930315	AT 1988-307696	19880819 <--
US 4980035	A	19901225	US 1989-382011	19890717 <--
PRIORITY APPLN. INFO.:				
			CH 1987-3226	A 19870821
			US 1988-233704	B1 19880818
			EP 1988-307696	A 19880819

OTHER SOURCE(S): MARPAT 111:122751

AB The bath contains CN- complexes of Au, of Cu and of Zn, a surface-active agent and a soluble Te and/or Bi salt. It may also contain a non-cyanide organic Zn complex, and a conductive salt and/or an alkali metal or ammonium cyanide. Deposits formed from the bath are corrosion resistant.

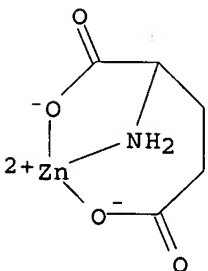
IT 15322-33-5

RL: PRP (Properties)

(electrodeposition of gold-copper-zinc alloys from baths containing)

RN 15322-33-5 CAPLUS

CN Zinc, [L-glutamato(2-)-κN,κO1,κO5]- (9CI) (CA INDEX NAME)



L6 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:476382 CAPLUS
 DOCUMENT NUMBER: 111:76382
 TITLE: Method for the determination of IgM and IgA immunoglobulins using zinc salts
 INVENTOR(S): Ben-Michael, Abraham
 PATENT ASSIGNEE(S): Savyon Diagnostics Ltd., Israel

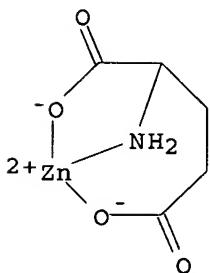
SOURCE: Eur. Pat. Appl., 8 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 261493	A2	19880330	EP 1987-113092	19870908 <--
EP 261493	A3	19890823		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 63133064	A2	19880604	JP 1987-225143	19870908 <--
NO 8703767	A	19880324	NO 1987-3767	19870909 <--
FI 8704080	A	19880324	FI 1987-4080	19870918 <--
DK 8704947	A	19880324	DK 1987-4947	19870921 <--
PRIORITY APPLN. INFO.:		IL 1986-80129	A	19860923

AB A method for the determination of IgM and IgA antibodies in blood serum involves removing the IgG and rheumatoid factor (RF) by precipitation with Zn²⁺, separating the liquid from the precipitate, and testing the liquid for IgM and IgA antibodies by immunoassay. Zn diglycinate (I) was prepared by treating ZnO with glycine, and adding Zn(OAc)₂. Human serum was tested by the immunoperoxidase assay (IPA) for the presence of antibodies to Chlamydia trachomatis; the IgG titer was 1:512 and no IgM was detected. The sample was diluted 1:10 with Tris to give 200 µL solution, an equal volume of 0.5 M I was added, and the sample was vortexed, and stored at 4° for 1 h. The sample was centrifuged and the liquid was subjected to the IPA. No IgG was detected, whereas the IgM titer was 1:128 and the IgA titer was 1:64. About 20% of the IgM and 15% of the IgA originally present in the sample were removed by the I treatment. When the same test was repeated using protein A as the precipitation reagent, the IgM titer was 1:128 and the IgA titer was 1:16.

IT 15322-33-5
 RL: BIOL (Biological study)
 (precipitation by, of IgG antibody and rheumatoid factor, for determination of IgM and IgA antibodies in blood serum)

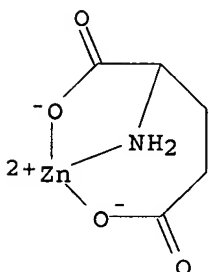
RN 15322-33-5 CAPLUS
 CN Zinc, [L-glutamato(2-)-κN,κO1,κO5] - (9CI) (CA INDEX NAME)



L6 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 1986:181241 CAPLUS
 DOCUMENT NUMBER: 104:181241
 TITLE: Computer simulation models for the low-molecular-weight complex distribution of cadmium(II) and nickel(II) in human blood plasma
 AUTHOR(S): Cole, Alun; Furnival, Christopher; Huang, Z. X.; Jones, D. Ceri; May, Ppeter M.; Smith, Gillian L.; Whittaker, Jill; Williams, David R.
 CORPORATE SOURCE: Inst. Sci. Technol., Univ. Wales, Cardiff, CF1 3XF, UK
 SOURCE: Inorganica Chimica Acta (1985), 108(3), 165-71
 CODEN: ICHAA3; ISSN: 0020-1693
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB A computer simulation investigation into the nature of Cd(II) and Ni(II)

binding by low-mol.-weight ligands in human blood plasma is described. The distribution of these metal ions among the complexes formed with nearly 50 ligands was computed. The most important formation consts. required for the calcns. were determined exptl. under biol. conditions. The predominant complexes formed by Cd(II) are binary cysteinate species, whereas Ni(II) exists mainly as a ternary complex involving both cysteinate and histidinate.

IT 15322-33-5
 RL: FORM (Formation, nonpreparative)
 (formation of, in human blood plasma, computer simulation models for)
 RN 15322-33-5 CAPLUS
 CN Zinc, [L-glutamato(2-)-κN,κO1,κO5]- (9CI) (CA INDEX NAME)



L6 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1983:67492 CAPLUS

DOCUMENT NUMBER: 98:67492

TITLE: Histamine as a ligand in blood plasma. Part 6.
 Aspartate and glutamate as possible partner ligands
 for zinc and histamine to favor histamine catabolism
 AUTHOR(S): Berthon, Guy; Germonneau, Philippe
 CORPORATE SOURCE: Lab. Chim. Electrochim. Interact., Poitiers, F-86022,
 Fr.

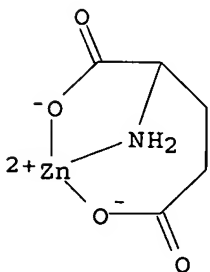
SOURCE: Agents and Actions (1982), 12(5-6), 619-29
 CODEN: AGACBH; ISSN: 0065-4299

DOCUMENT TYPE: Journal

LANGUAGE: English

AB It has been proposed that any partner ligand for Zn and histamine (I) in which raising its plasma concentration would entail a better mobilization of I into neutral diffusable metal complexes would favor I catabolism. Such a role was envisaged for aspartate and glutamate, and their efficiency in this respect was tested by computer simulations, using the equilibrium consts. of the corresponding Zn-I-aspartate and Zn-I-glutamate complexes determined under standard plasma conditions. Aspartate and glutamate plasma concns. would have to be raised 1000- and 400-fold over their resp. normal levels before the combination of each of these amino acids with Zn would become more efficient than the effect of Zn alone.

IT 15322-33-5
 RL: PRP (Properties)
 (formation constant of)
 RN 15322-33-5 CAPLUS
 CN Zinc, [L-glutamato(2-)-κN,κO1,κO5]- (9CI) (CA INDEX NAME)



L6 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1971:83161 CAPLUS

DOCUMENT NUMBER: 74:83161

TITLE: Computed distribution of copper(II) and zinc(II) ions among seventeen amino acids present in human blood plasma

AUTHOR(S): Hallman, P. S.; Perrin, Douglas D.; Watt, Ann E.

CORPORATE SOURCE: John Curtin Sch. Med. Res., Aust. Natl. Univ., Canberra, Australia

SOURCE: Biochemical Journal (1971), 121(3), 549-55

CODEN: BIJOAK; ISSN: 0264-6021

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The equilibrium distribution of Cu(II) and Zn(II) ions among a mixture of 17 amino acids was computed from stability-constant and blood-plasma-composition data. At pH 7.4, 98 of the Cu(II) in the simulated plasma solution is coordinated to histidine and cystine, predominantly as mixed-ligand complexes. Approx. half of the Zn(II) is coordinated to cysteine and histidine, but appreciable complex-formation occurs with most of the other amino acids. Stability consts. are given for Cu(II) and Zn(II) amino acid complexes, including some mixed-ligand species, at 37° and I = 0.15M.

IT 15322-33-5, Zinc, (L-glutamato)-

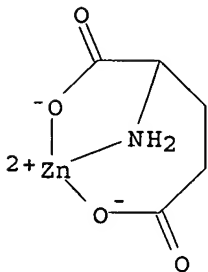
RL: BOC (Biological occurrence); BSU (Biological study, unclassified);

BIOL (Biological study); OCCU (Occurrence)

(of blood plasma)

RN 15322-33-5 CAPLUS

CN Zinc, [L-glutamato(2-)-κN,κO1,κO5]- (9CI) (CA INDEX NAME)



L6 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1970:459668 CAPLUS

DOCUMENT NUMBER: 73:59668

TITLE: Solubility and properties of equilibrium solutions in the sodium L-glutamate-zinc chloride-water system

AUTHOR(S): Potemko, L. I.; Bakasova, Z. B.; Druzhinin, I. G.

CORPORATE SOURCE: Inst. Org. Khim., Frunze, USSR

SOURCE: Izvestiya Akademii Nauk Kirgizskoi SSR (1969), (5), 56-61

CODEN: INKSAD; ISSN: 0002-3221

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB In the above system, the formation of two new compds., Zn di-Na diglutamate and Zn glutamate, was ascertained. The compds. were isolated, and their phys. properties (d., n, solubility, dissociation constant, ir spectra, and x-ray patterns) were measured.

IT 15322-33-5P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 15322-33-5 CAPLUS

CN Zinc, [L-glutamato(2-)-κN,κO1,κO5]- (9CI) (CA INDEX NAME)